

# M 5.4, 56 km E of Marihatag, Philippines

Origin Time: 2023-12-03 21:43:38 UTC (Mon 05:43:38 local)  
Location: 8.7398° N 126.8062° E Depth: 24.2 km

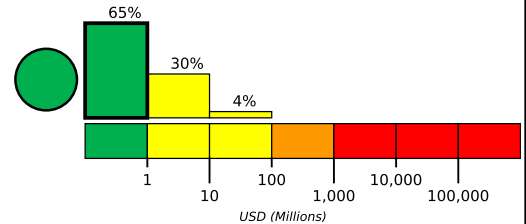
**PAGER**  
**Version 4**

Created: 3 weeks, 1 day after earthquake

## Estimated Fatalities

Green alert for shaking-related fatalities and economic losses. There is a low likelihood of casualties and damage.

## Estimated Economic Losses

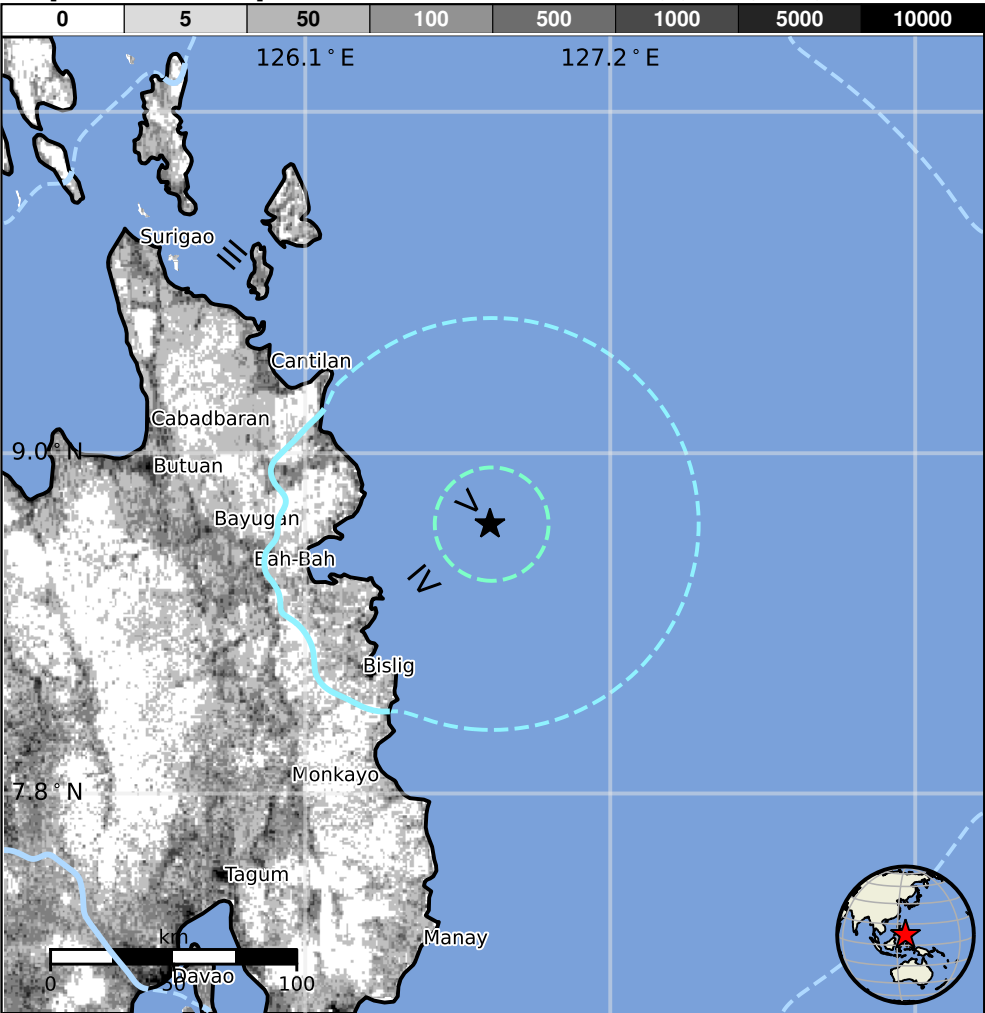


## Estimated Population Exposed to Earthquake Shaking

ESTIMATED POPULATION EXPOSURE (k=x1000)		—*	8,181k	659k	0	0	0	0	0	0
ESTIMATED MODIFIED MERCALLI INTENSITY		I	II-III	IV	V	VI	VII	VIII	IX	X+
PERCEIVED SHAKING		Not felt	Weak	Light	Moderate	Strong	Very Strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	Resistant Structures	None	None	None	V. Light	Light	Moderate	Mod./Heavy	Heavy	V. Heavy
	Vulnerable Structures	None	None	None	Light	Moderate	Mod./Heavy	Heavy	V. Heavy	V. Heavy

\*Estimated exposure only includes population within the map area.

## Population Exposure



## Structures

Overall, the population in this region resides in structures that are a mix of vulnerable and earthquake resistant construction. The predominant vulnerable building types are unknown/miscellaneous types and heavy wood frame construction.

## Historical Earthquakes

Date (UTC)	Dist. (km)	Mag.	Max MMI(#)	Shaking Deaths
1999-12-15	379	4.8	VI(34k)	1
1987-05-23	166	5.7	VII(70k)	1
1989-12-15	43	7.5	VIII(1k)	2

## Selected City Exposure

from GeoNames.org

MMI	City	Population
IV	Marihatag	4k
IV	Cagwait	<1k
IV	Hinatuan	10k
IV	Aras-asan	5k
IV	Unidad	3k
IV	Salvacion	2k
III	Libertad	250k
III	<b>Butuan</b>	<b>310k</b>
III	Magugpo	233k
III	<b>Davao</b>	<b>1,213k</b>
III	Mati	106k

PAGER content is automatically generated, and only considers losses due to structural damage. Limitations of input data, shaking estimates, and loss models may add uncertainty.  
<https://earthquake.usgs.gov/earthquakes/eventpage/us70001fzh#pager>

bold cities appear on map.

(k = x1000)

Event ID: us70001fzh